of reference bunch graphs. Special cases within one object class can be dealt with separately or left out of consideration in this way.

Alternatively, it is also possible to combine all the reference graphs provided so as to form one or a plurality of reference bunch graphs.

The above-described methods can be further developed in such a way that the structure of the jets associated with the nodes, which is determined by the sub-jets, depends on the respective node.

An a priori knowledge of the structures to be recognized can be utilized in this way. For example, specific image information can be evaluated only within a range in which it is actually significant. Furthermore, e.g. edge filters (cut-off filters) can be used at the edge of the structure.

Alternatively, the structure of the node-associated jets, which is determined by the sub-jets, can be identical for all nodes.

This further development is especially characterized in that it has a homogeneous data structure. Hence, the method can be realized by a comparatively simple hard- and/or software implementation.

In the above-described methods a graph comparison function can advantageously be used, said graph comparison function comprising a jet comparison function that takes into account the similarity of the jets corresponding to one another.

In addition, the graph comparison function can comprise a comparison function for the net-like structure, which takes into account the metric similarity of the image graph and the corresponding reference graph or the corresponding reference bunch graph. In this case, it will be expedient to define the graph comparison function as a weighted sum of the jet comparison function and of the comparison function for the net-like structure.

The jet comparison function can be defined as a function of single jet comparison functions of jets corresponding to one another.

For this purpose, the jet comparison function can advantageously be defined as a weighted sum of the single jet comparison functions and/or as a weighted product of the single jet comparison functions.

In accordance with an expedient embodiment, sub-jets of the corresponding jets can be taken into account for determining a single jet comparison, and a single jet comparison function can be defined as a function of sub-jet comparison functions.

In accordance with an advantageous embodiment, the single jet comparison function can be defined as weighted sum of the sub-jet comparison functions and/or as a weighted product of the sub-jet comparison functions.

In particular, it is also possible to use different node-dependent jet comparison functions and/or single jet comparison functions and/or sub-jet comparison functions.

In connection with the above-described reference bunch graphs, the bunch jets of the reference bunch graph B^M can be divided into sub-bunch jets j_n^M, and the jet comparison function between the sub-bunch jets j_n^M of the reference bunch graph and the corresponding sub-jets j_n' of the image graph G' for n nodes for m recursions can be calculated according to the following formulae:

$$S_{Jet}(B^M, G') = \sum_n \omega_n S_n(B_n^M, J_n'),\ \text{or}$$

$$S_{Jet}(B^M, G') = \prod_n (S_n(B_n^M, J_n'))^{\omega_n},\ \text{wherein}$$

ω_n is a weighting factor for the n-th node n, and the comparison function $S_n(B_n^M, J_n')$ for the n-th node of the reference bunch graph with the n-th node of the image graph is given by:

$$S(B^M, J') = \Omega\left(\left\{S_{kl}(b_k^M, j_l')\right\}\right) =: \Omega(M),\ \text{with}$$

$$\Omega^{(0)}(M) = \sum_i \omega_i \Omega_i^{(1)}(M_i^{(1)})\text{, or}$$

$$\Omega^{(0)}(M) = \prod_i \left(\Omega_i^{(1)}(M_i^{(1)})\right)^{\omega_i}\text{, or}$$

$$\Omega^{(0)}(M) = \max_i\left\{\omega_i \Omega_i^{(1)}(M_i^{(1)})\right\}\text{, or}$$

$$\Omega^{(0)}(M) = \min_i\left\{\omega_i \Omega_i^{(1)}(M_i^{(1)})\right\}\text{, wherein } \bigcup_i M_i^{(1)} = M$$

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$$\Omega_i^{(m-1)}(M_i^{(m-1)}) = \sum_j \omega_j \Omega_j^{(m)}(M_j^{(m)})\text{, or}$$

$$\Omega_i^{(m-1)}(M_i^{(1)}) = \prod_j \left(\Omega_j^{(m)}(M_j^{(m)})\right)^{\omega_j}\text{, or}$$

$$\Omega_i^{(m-1)}(M_i^{(m-1)}) = \max_j\left\{\omega_j^{(m)}(M_j^{(m)})\right\}\text{, or}$$

$$\Omega_i^{(m-1)}(M_i^{(m-1)}) = \min_j\left\{\omega_j \Omega_j^{(m)}(M_j^{(m)})\right\}\text{, wherein } \bigcup_j M_j^{(m)} = M_i^{(m-1)} \text{ and with}$$

$$S(b^M, j') = \sum_n \omega_n S_n(j_n^M, j')\text{, or}$$

$$S(b^M, j') = \prod_n (S_n(j_n^M, j'))^{\omega_n}\text{, or}$$

$$S(b^M, j') = \max_n\left\{\omega_n S_n(j_n^M, j')\right\}\text{, or}$$

$$S(b^M, j') = \min_n\left\{\omega_n S_n(j_n^M, j')\right\}.$$

In this case, the sub-bunch jets of the reference bunch graph or graphs may comprise only features which have been determined by convolutions of at least one class of filter functions with different magnitudes and/or orientations with the reference image data of the corresponding reference image at the specific node, or by convolutions of at least one class of filter functions with different magnitudes and/or orientations with colour-segmented reference image data of the corresponding reference image at said specific node, or by colour information on the reference image data at said specific node, or by texture descriptions of the corresponding reference image at said specific node, said